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ABSTRACT

The Tennessee Self Concept Scale was used to study the effect of outdoor adventure activities on the self concept of university students. Related studies have found significant changes in self concept following survival training and Outward Bound experiences. The study population consisted of 99 students enrolled in 1 of 4 classes at Eastern Washington University. Three classes included an adventure activity, e.g., overnight survival camps, rappelling, back country hiking, as part of the course curriculum; the fourth class, the control group, was a traditional lecture course. The Tennessee Self Concept Scale was administered to all four classes in the first week of the Spring Quarter 1977 and again nine weeks later, in the last week of the quarter. Two measures were obtained from the scale: one reflecting overall level of self esteem and one reflecting capacity for self criticism. The separate variance t test was used to measure statistically significant differences in class means for pre and post test scores. The comparison of means suggested a positive change in self concept for the classes featuring outdoor adventure activities, but levels of change did not reach statistical significance for self esteem or self criticism scores. Additional research is needed using a larger population and other measures of self concept such as the Minnesota Multiphasic Personality Inventory. (JH)

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THE EFFECTS OF OUTDOOR ADVENTURE ACTIVITIES UPON SELF-CONCEPT

A Thesis

Presented To

Eastern Washington University

Cheney, Washington

In Partial Fullfillment of the Requirements

for the Degree

Masters of Science

By

Alan Ewert

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Robert F. McCollum - 11/30/77
Chairman, Graduate Study Committee Date

12/1/77
Member, Graduate Study Committee Date

Alan R. Sickels 12-1-77
Librarian Date

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Chapter I

INTRODUCTION

Cognitive performance is often the primary measuring tool for evaluating classroom effectiveness. Unfortunately what the classroom teaches and what the students need to be taught are often differentiated. Classroom curriculum often leave the students only partially satisfied and prepared for future interrelationships.[1]

According to the Carnegie Commission on Higher Education, 91% of the undergraduate students agree that collegiate education in America would be enhanced if course work was relevant to contemporary life and problems. In the same study, 83% of the students interviewed, stated that more attention should be paid to the emotional growth of students.[2]

With an apparent gap between campus intellectualism and reality, colleges and universities are turning to more unorthodox methods of higher education. Institutions are turning to experiential education to provide students with increased appreciation of human and physical factors essential for the continuance of human life.[3] Along with an increased appreciation of human and physical factors, a student's self concept and personal behavior is becoming increasingly important to institutional objectives.

In order to achieve both traditional and contemporary

institutional objectives, educators must institute innovative teaching techniques. Outdoor related activities, if properly utilized, can provide adventure, stress, and commitment, to assist in forming desirable behavioral outcomes. The National Outdoor Leadership School, Lander, Wyoming, has summed up the need for challenge or adventure in our educational system by their statement:

"We take as a fundamental premise that youth demand adventure, and if adventure is not planned into our educational process, than youth will create adventure, often in illegal or unacceptable means."[4]

How a student reacts to a stressful situation or an environmental challenge will often provide him with positive feedback. Studies on Outward Bound experiences have indicated a distinct positive change in self concept, Clifford and Clifford[5], Lovett[6]. This self concept change has been accomplished through a field oriented experience. To date, information is limited as to the effectiveness of classroom teaching and a student's self concept.

An increasing number of institutions, (Bemidji State College, Darmouth College, Eastern Washington University, Evergreen State University, Mankato State University, and Prescott College) are utilizing challenge programming to enhance student self concept.

College students appear especially responsive to the combination of physical stress, mental challenge, group encounter, and individual awareness.[7] With this in mind, many institutions are using outdoor challenge activities to promote an attitude that encourages discussion and leads to a reasoned and responsible approach to personal problems and social conflicts.[8]

STATEMENT OF THE PROBLEM

This investigation is concerned with varying classroom environments (Outdoor Challenge Activities versus Indoor Activities) and their effect on the self concept of the participating students.

IMPORTANCE OF THE STUDY

Classes conducted by institutions such as Outward Bound and Brigham Young University have been documented. Davis,[9] Thorstenson and Heaps,[10] indicate a change of self concept toward the positive side.

Unfortunately, these are field conducted classes and do not relate to any self concept change precipitated by a classroom learning experience. It is felt that outdoor adventure classes, even of an academic nature, will produce a stress stimulus that will create a definite move toward a positive self concept.

Outdoor education/recreation is an ever expanding educative realm which may be able to effect the student in an affective manner. Something of this magnitude may be considered by the educator in an administrative position.

This study will attempt to prove the hypothesis that Outdoor Recreation classes featuring Adventure Activities and bringing the student into a direct relationship with nature and his personal actions will produce a significant positive self concept change. Correspondingly, those students not engaged in an outdoor recreation class with adventure activities, will not experience as great a change in their

self concept.

If the study indicates a positive change in self concept, educational administrations may elect to incorporate outdoor oriented challenge activities within their curriculums.

Challenge programs have proven effective with people from almost every social class and culture. Members of every minority group have been involved. Dropouts, delinquents, individuals with various I.Q.'s, all have been involved and affected. The programs have given opportunities for the development of self confidence, a feeling of worth, and a knowledge that individuals have some control over their future.[11] Educators may find the utilization of outdoor challenge activities an asset to their programs and an aid to the realization of their educational objectives.

DELIMITATIONS

1. This study was conducted using the Tennessee Self Concept Test developed by William Fitts.[12]
2. A pre/post test methodology was utilized.
3. The Tennessee Self Concept Test was administered to four classes during Spring Quarter 1977 at Eastern Washington University.[13] These classes consisted of:
    a. Anthropology 101 (43 students)
    b. Survival Education 315 (22 students)
    c. Wilderness Living 206 (24 students)
    d. Outdoor Leadership 410 (10 students)

The Anthropology 101 class consisted of 43 students and

acted as the control factor in the investigation. This class was chosen as the control agent for the following reasons:

a. Relatively large number of subjects

b. Variability within the class, as to conditions of age, class standing, and teaching procedure (lecture and method).

c. The class was unrelated to outdoor recreation thereby reducing the influence of outdoor related activities and attitudes.

4. The 99 volunteers were given identical instructions and information concerning the test (such as the purpose of the test, the procedures for answering, and the fact that the test was voluntary in nature).

LIMITATIONS

1. Students may have answered the test in a preconceived way, Hawthorne effect. To offset this phenomenon, the students were cautioned to answer with honesty.
2. No follow-up testing (longitudinal investigation) procedure was planned to determine self concept changes with a given time period after the initial investigation. Consequently, any noticeable effects may be of short term duration.
3. Internal validity may have been affected by:

a. Maturation-The changes may have been simply due to the fact that the individuals tested have

grown older. This phenomenon may be offset by the use of a control group.

b. Testing-With the use of identical pre and post tests, students may "second guess" the post test from prior experience.

c. Selection of Individuals-The control group should be similar in consistency and make-up.

HYPOTHESIS

The following null hypothesis were tested in this study:

1. There will be no change in the Total Postive Score (TP) in those students participating in those classes utilizing outdoor adventure activities (such as Survival Education, Wilderness Skills, and Outdoor Leadership). An increased Total Positive Score would indicate a more positive self-concept within the individual.
2. Those individuals participating in outdoor challenge activities will not exhibit higher Self Criticism Scores in the post test evaluation. A higher Self Criticism Score would indicate a normal, healthy openess and capacity for self-criticism.

DEFINITION OF TERMS

Adventure Activity.--An activity encountering risk, hazards or bold undertakings, in which hazards are to be met and the issue hangs upon unforseen events.[14]

Outward Bound Educative Method.--Outward Bound, originally a nautical term referring to a ship leaving its harbor, was the title given to a school established by Kurt Hahn, during World War II. The method of Outward Bound involves the taking of a group of people from familiar surroundings, giving them some outdoor skills orientation and involving the group and individual with structured stressful situations. The group encounters such problems as group dynamics, group problem solving, and individuals reaction to stress, and decision making. The group is supervised by an instructor and guided or directed when needed. Outward Bound situations include such activities as; river rafting, rock climbing, backpacking, trust excercises, a marathon race, and a solo experience.

Learning.--An enduring change in a living individual that is not heralded by his genetic inheritance. It may be a change in insights, behavior, perception, or motivation, or a combination of these.[15]

Self Concept.--An individual's concept of himself. The individual's self concept has been demonstrated to be highly influential in his behavior and directly related to his general personality and state of mental health. Those people who see themselves as undesirable, worthless, or "bad" tend to act accordingly. Those who have a highly unrealistic concept of self tend to approach life and other people in unrealistic ways. This, a knowledge of how an individual perceives himself is useful

in attempting to help that individual, or in making evaluations of him.

Outdoor Challenge Activity.--Challenge activities, formerly called risk recreation, provides physically demanding and stressful experiences, as catalysts to stimulate personal development, environmental awareness, personal introspection, problem solving, decision making, and self-reflection. Situations such as rock climbing, mountaineering, river rafting, extended wilderness trips, and group contact are often utilizied as outdoor challenge activities.

Outdoor Education.--A teaching methodology that combines direct experience, and exploratory/discovery approach, and multisensory learning to teach through or for the out-of-doors. Outdoor Education is intended to supplement and compliment the indoor classroom rather than to replace it. Outdoor Education utilizes the out-of-doors as a medium to teach through, thereby, adding relevancy and first-hand experience to the student's learning process.

Outdoor Recreation.--An activity which is most appropriately done and learned in the out-of-doors. Outdoor Recreation is generally thought of as voluntary in nature. Benefits derived from Outdoor Recreation generally include; a greater appreciation toward the outdoor environment, increased physical and psychological well-being, and a renewed sense of social interaction.

Stress Activities.--Activities which involve the utilization of apparent dangerous, risky, or uncomfortable situation. The risks or dangers involved are implied rather than real, in that, the student perceives danger while the instructor sees a controlled situation. Through the use of stress activities the elements of fear and coping with an unknown situation can be utilized in a controlled manner.

[1]G.A. Budig and S.G. Rives, Academic Quicksand, Some Trends and Issues in Higher Education (Lincoln, Nebraska: Professional Educators Publications, Inc., 1973), p. 19.

[2]Ibid., p. 12.

[3]Fredrick W. Medrick, Outward Bound and Higher Education (Denver, Colorado: Colorado Outward Bound School, 1974), p. 3.

[4]Paul Petzoldt, Wilderness Handbook (New York, New York: Burgess Publishing Co., 1972), p. 5.

[5]E. Clifford and M. Clifford, "Self Concepts Before and After Survival Training." British Journal of Social and Clinical Psychology, March 1967, 6, pp. 241-248.

[6]Richard A. Lovett, "Outward Bound: A Means of Implementing Guidance Objectives" (unpublished PhD dissertation, University of Toledo, 1973), p. 3.

[7]Fredrick W. Medrick, Outward Bound and Higher Education (Denver, Colorado: Colorado Outward Bound School, 1974), p. 3.

[8]Ibid., p. 3.

[9]Robert W. Davis, "The Fear Experience in Rock Climbing and Its Influence upon Future Self-Actualization" (unpublished PhD dissertation, University of Southern California, 1972), pp. 84-86.

[10]Glen, Hawkes, "Evaluation of Outward Bound Teacher's Practica" (unpublished PhD dissertation, University of Massachusetts, 1969), pp. 50-54.

[11]John A. Metcalfe, Adventure Programming (Austin, Texas: National Educational Laboratory Publishers, Inc., 1976), p. 7.

[12]William H. Fitts, Tennessee Self Concept Scale (Nashville, Tennessee: Counselor Recordings and Tests, 1965).

[13]See Appendix A.

[14]John A. Metcalfe, Adventure Programming (Austin, Texas: National Educational Laboratory Publishers, Inc., 1976), p. 1.

[15]Morris L. Bigge, Learning Theories for Teachers (New York, New York: Harper and Row, 1971), p. 1.

[16]William H. Fitts, Tennessee Self Concept Scale - Manual (Nashville, Tennessee: Counselor Recordings and Tests, 1965), p. 1.

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Chapter II

REVIEW OF LITERATURE

The review of related literature was conducted to; determine the need for this study, decide whether similar studies had been completed, and examine the methods and procedures used by similar studies.

A summary of the literature which was most closely related to this study is presented in the following order; survival training and self-concept, Outward Bound training and self-concept, studies of educational programs utilizing outdoor adventure activities, and self-concept as it relates to academic achievement.

SURVIVAL TRAINING AND SELF-CONCEPT

A doctoral dissertation by Risk[1] focused on the effects of a wilderness survival experience on self concept. The study was designed to measure self concept, personality, and values before and after a twelve day wilderness survival experience.

Eleven participants, six male and five female, after a 10 week basic wilderness survival course, were taken to an uninhabited island in Lake Michigan. The participants were given basic outdoor clothing, and a minimum survival kit. All other needed items were to be acquired from the natural environment, including food, water, and shelter.

Instruments utilized included: The Tennessee Self Concept Test, The Sixteen Personality Factors Test, (16PF), and Rokeach's Value Survey. Concurrent with the testing instruments, a pre/post testing

procedure was utilized. Changes, in order to be considered significant, were required to exhibit a two-tailed probability of .05 or less.

Post test scores indicated significant changes in six catagories within the Tennessee Self-Concept Test. These categories included: total positive, self satisfaction, physical self, moral-ethical self, defensive positive, and general maladjustment. All categories showed a positive change which indicated improved self-concept.

16 PF Scores showed significant changes in relation to: affected by feeling vs. emotionally stable; sober vs. happy-go-lucky; trusting vs. suspicious; practical vs. imaginative; group dependent vs. self sufficient; relaxed vs. tense.

Three terminal values on Rokeach's Value Survey, freedom, mature love, and wisdom, changed while three instrumental values showing shifts were: broadminded, forgiving, and polite.

A study by Seymour Robbins[2], "Outdoor Wilderness Survival and Its Psychological and Sociological Effects Upon Students in Changing Human Behavior", was initiated to determine what effects an Outdoor Survival Program had upon participants' self-concept.

Mean differences at the .05 level were found on 10 measures of self-concept. A reduced gain in self-concept scores were significantly evident in "conflict" subjects at the .01 level of confidence.

A master's thesis conducted by Paul S. Cleland[3], at the United State Air Force Survival School in 1976, studied the effects of a 12 day survival training program on the self concept of Air Force personnel.

Testing instruments were as follows: a self-rating scale, self-description test, the Rotter Locus of Control Scale, and a Semantic

Differential Format. A pre/post testing procedure was utilized with the post test being given on the final day of the 12 day course.

Of the 43 students who took both the pre and post tests, 34 were officers and 9 were non commissioned officers. When evaluated for self-concept, results indicated a very positive self-concept prior to survival training. Pre-test mean was 12.80, with a standard deviation of 5.00, and a t score of 2.32.

Results of the self-description test indicated a pre-test 34.95 and a post-test mean of 34.17. A t score of 1.74 was not considered significant.

The Rotter Locus of Control Scale results were a mean pre-test score of 8.4 with a standard deviation of 3.86. The mean post-test was 6.75 with a standard deviation of 3.92. The t score of 3.75 was considered highly significant with a .01 level of significance within a two tailed test.

The Somatic Differential Scale Test results contained a total of four significant scores out of six possibles. The mean pre-test score was 2.593 with a standard deviation of 1.61. The mean post-test score was 2.02 with a standard deviation of 2.18. The levels of significance were .05 and .01 respectively.

Cleland regarded the test data as substantiating his hypothesis that survival training would produce an increase in a student's self esteem and feeling concerning his future. The locus of control data indicated that <u>after</u> survival training the student felt better suited to control his own destiny. Cleland summized that generally speaking, survival training produced a change to more positive feelings about oneself.

Individual self concept changes have been observed in a variety of situations. Heaps, and Thorstenson[4] investigated the results of an outdoor survival course at Brigham Young University. The counseling form of the Tennessee Self-Concept Scale (Fitts, 1965) was administered to 21 subjects (7 males and 14 females) in a pre/post test fashion. The group consisted of students without expressed problems, students on academic suspension, several drug users, and juvenile delinquents.

The survival experience included an initial adjustment or shakedown hike, without food or blankets, lasting two to three days; a group expedition in which the initial group was subdivided and specified physical-geographical goals accomplished by each group; rappelling; a survival week living off the land; student solo experiences, living alone up to three days, and a small group expedition without supervision.

All evaluated categories of data demonstrated a marked increase in scores, except that of self criticism. The participants of the investigation demonstrated an increased level of self-esteem, identity, self-satisfaction, behavior, physical self, moral-ethical self, personal self, family self, and social self, after their survival experience or outdoor challenge activity. Heaps and Thorstenson recommended the incision of a control group, larger sample sizes, and further study into the various components of a survival program.

Moses and Peterson[5] did a study which did involve the use of a control group and the effects of a survival experience. This study consisted of the comparison of three approaches to improving grade point averages of low achievers (academic performance). The three

approaches included; sensitivity training, survival training, and a control group (no special training).

Results indicated sensitivity training (Group A), to be the most effective with an initial increase in the average G.P.A. one semester later to be .76 points. It should be noted that some question has been raised as to the validity of the results due to the uneven number of participants. In the study, Group A, consisted of 14 subjects, Group B had 44 subjects and Group C was composed of 45 participants.

Group B (survival training), did register +.47 points and maintained that increase for a full three semesters. Group C had a +.07 increase in G.P.A. and continued this increase for two semesters.

Moses and Peterson concluded that survival training was of value as an aid in the development of better academic performance in college work.[6] Further extrapolation would indicate this phenomena may be partially accounted for by an increase in the participant's self concept. What the author is suggesting is a direct relationship between self concept and academic performance.

Another study was conducted at Brigham Young University by Gary Howard[7]. This study utilized the Tenessee Self-Concept Scale Counseling Form to assess the effects of a 26 - day survival training experience on self-concept. A pre/post test evaluative method was utilized on twenty-five subjects.

Post testing indicated significant changes in thirteen of the nineteen scales contained on the test. According to Howard,

> On almost every scale, the post-test mean moved closer to the National Mean. On those scales where it was desirable to be below or above the National Mean, the post-test mean had moved toward the desirable position.[8]

Scales in which significant improvement appeared included the physical self, moral-ethical self, family self, social self, self satisfaction, and self esteem. The author concluded that survival training produced a significant improvement of self concept.

The Tennessee Self Concept Scale was utilized in conjunction with Cattell's 16 PF Test in a study conducted on adolescent patients at the Wyoming State Mental Hospital by Adams[9]. Both tests were administered in a pre/post test fashion. The subjects experienced a thirty-day survival training program. Results indicated a significant decline in neuroticism after the survival training. Also suggested were increased ego strength, conscientiousness, acceptance, adaptability, composure and tranquility.

OUTWARD BOUND TRAINING AND SELF-CONCEPT

Robert Patterson, of Temple University, conducted a study,[10] on the influence of an Outward Bound program on self-concept in participants. The program consisted of 82 participants, 44 females and 38 males engaged in an Outward Bound Course in North Carolina. The methodology consisted of a pre/post test scheme utilizing the Tennessee Self Concept Test. A comparision group was utilized, consisting of 78 summer school students, 28 females and 50 males, from West Chester High School, West Chester, Pennsylvania.

The ten self concept categories measured by the test included self, criticism, total positive, physical self, moral-ethical self,

personal self, family self, social self, identity, what he is, self-satisfaction, how he accepts himself, and behavior, how he acts.

The test was administered the first day of the Outward Bound Course, at the end of the course, and three months later. The test after a three month period was given to determine carryover of those behavior and attitudinal changes that occurred during the course.

Major conclusions reached from the study indicated a significant increase in self-concept scores. These scores appeared to carry over the three month period and were reflected in the final test. It can be assumed that in this situation, the challenge activities provided in the Outward Bound experience did produce a desirable (positive) change in self-concept.

The results of a doctoral dissertation by Winkie[11], of Rutgers University, substantiated the claim of positive growth in self-concept through an Outward Bound Course. His dissertation, "The Effects of an Outward Bound School Experience on Levels of Moral Judgement and Self-Concept", utilized the Tennessee Self-Concept Test and Rest's Defining Issues Test.

The sample included 147 men and women from various geographical areas within the United States. The Outward Bound Course included rock climbing, survival capsize swimming, ecology, first aid, community service, sea expeditions, solo, and rescue operations.

The methodology included a pre/post testing procedure with two study groups. Group A, the treated group, was given the pre-test prior to their Outward Bound Experience. The group was post-tested on the last day of the course (26 days). The treated group was retested 130 days after the Outward Bound experience to determine

whether changes in levels of moral judgement and self-concept occurred after they returned to their home environment.

Utilizing a comparative group as a control, students accepted for the next Outward Bound Course, served as the non-treated group. The non-treated group was pre-tested in early June, one month before the beginning of their Outward Bound course. The post-test was administered the first day of their arrival (July 15, 1974), prior to exposure to the Outward Bound experience.

Results of the study indicated the catalytic nature of an Outward Bound Course, in affecting levels of moral judgement and self-concept. Means of the treated group when compared to the means of the non-treated group demonstrated a distinct movement towards higher levels of moral judgement and self-concept.

In a paper presented at the National Association of Health, Physical Education, and Recreation Conference, in Spring of 1974, Sharon Koepke described the results of her study of "The Effects of Outward Bound Participation Upon Anxiety and Self-Concept."[12]

The group tested consisted of 33 male and 11 female participants in a Colorado Outward Bound School. Pre and post tests were given utilizing the Gough Adjective Check Lists Test and State-Trait Anxiety Inventory.

Results of the evaluation process indicated a positive change in self-concept. Both state and trait anxieties decreased following participation in the Outward Bound Course.

One of the earlier studys undertaken to determine a relationship of Outward Bound type experience and self-concept was conducted by E. Clifford and M. Clifford.[13] Their study examined the effects

of a Colorado Outward Bound School Course on adolescent boys. Results of their study indicated that an overall change in the self concept did take place in the appropriate direction and discrepencies between the self and the ideal-self were reduced.

Lovett[14], conducted a study of 78 Toledo, Ohio High School students. His findings indicated that those students who participated in Outward Bound, gained a more positive self-concept. The Outward Bound participants also demonstrated more confidence in decision-making and peer interaction.

A study by Whetmore[15] looked into the effects of Outward Bound on the self-concepts of 219 boys who attended the Hurricane Island Outward Bound School. Whetmore used the Tennessee Self-Concept Test, the Kelly and Baer Behavior Rating Scale, and self-reports from students six months after the course. Results indicated a distinct positive change in self-concept while in attendance at the Outward Bound School. Results also showed that the intensity of positive change in self-concept decreased after the students returned to their home environment.

STUDIES OF EDUCATIONAL PROGRAMS UTILIZING OUTDOOR ADVENTURE ACTIVITIES

A study by Naches and Roberts[16] examined the effect of Outward Bound adaptive programming on high school students. The program entitled, "Dare to Care", involved a High School Personality Questionaire, A Student Attitude Survey, and A Staff Rating Scale. Three groups of students; top students, volunteers, and potential drop-outs were utilized.

Results of the study indicated all of the students involved

in the program became more outgoing, affected by feelings, assertive, tender-minded, and self-controlled. It was also shown that the potential drop-outs produced the most significant personality changes.

An Outward Bound adaptive program (Project Adventure) at Hamilton Wenham Regional High School was studied by Fersch and Smith[17]. In the study the authors used a variety of tests: The Rotter Scale of Internal and External Control, Tennessee Self-Concept Test, Student Questionnaires, Self-Rating Scale, School Climate Survey, and Physical Tests.

Major findings of the study indicated that there was an overall positive change for the class, the students involved in the project demonstrated a higher degree of internal control, the students exhibited a significant decrease in general enthusiasm for the regular school program, and girls did as well, in many instances better, than boys.

An alternate semester program at Lincoln Sudbury Regional High School in Massachusetts, was evaluated to determine the effects Outdoor Adventure and Education had on students. Their report included student anecdotal responses, a parent questionnaire, staff evaluations of particular units, and staff evaluations of the overall project.

Major findings indicated an improved self confidence and self-image as witnessed by Pierson's statement," . . . the majority of these students aquired a more positive, self confident image of themselves."[18]

A Senior Seminar, consisting of a combination of Outdoor Education and Adventure Activities, was evaluated by Ratliff.[19] The study, conducted at Denver East High School, Colorado, consisted of

comparing test results of a seminar and control group. The seminar consisted of 93 students and the control group having, 31 seniors randomly selected.

The instrument used in the evaluation was a 59 question test. The test was administered in a pre/post test fashion.

When comparisons were made, the seminar students; 1. developed more meaningful relationships with teachers, 2. felt that the seminar experience had had a significant effect on their goals for the future, 3. viewed the seminar as an experience leading to personal change, 4. related better to their parents, 5. related better to members of other racial groups, 6. developed closer personal relationships with other students, and 7. increased in their desire to go to college.

A follow-up study, conducted by the Denver Public School was conducted to re-evaluate the examination by Ratliff.[20] The conclusions reached by this study supported Ratliff, in that participating students demonstrated; 1. improved self-understanding, 2. improved relations with other racial groups, 3. improved understanding of society, and, 4. an improved sense of the value of education.

Another Outdoor Adventure Program modeled after the Denver East High School experience was evaluated by one of the staff members, Fornander[21]. The semester long program, called the Mitchell High School Senior Seminar, was evaluated by a variety of evaluations including; The Tennessee Self-Concept Test, The School Climate Survey, and the Student Description Form.

Responses indicated a "desirable change", (demonstrating a positive growth in self-concept) in the seminar students. In most cases the mean differences (group data) for the seminar students was

noticeably greater than for the control group.

Results of the School Climate Survey indicated that seminar students felt less positive about the regular school program. The Student Descriptive Form showed little significant difference between the seminar students and the control group. The exception to this case, was observed in the "Consideration for Others" category, where seminar students demonstrated an increase over the control group.

Morris and Hart[22] evaluated the effects of The Wassen Experiential Education Seminar. The Seminar was a semester long program conducted at another Colorado Springs High School. A dual approach was taken to evaluate results, which included a detailed statement of the educational goals generated from the school system and reacted upon by the students, staff, and parents, and a pre/post testing of the seminar students utilizing the W.E.E.S. Affective Inventory.

Results indicated a "more positive self-concept from the seminar students". Data also pointed to an increased self-awareness, in that "many students are more cognizant of their strengths and weaknesses."

A.D. Kesseleim has advocated the use of Outdoor Adventure Activities in his treatise, "The Reason for Freezin": A rational for Outdoor Activity as Experential Education"[23]. Desseleim contends that there are five elements common to an outdoor adventure activity. These elements are: an environmental contrast; physical activity; the intentional use of stress; a small group context; and the employment of newly acquired knowledge and skills. Together these elements contribute to enhancing self-concept. Kesseleim maintains that self-concept is of such importance that it ranks among the three or four aims of education.

The importance placed upon self-concept is supported by Dan and Diane Meyer. The Meyer's state that "perhaps the most important determinant of a person's future is self-concept."[24]

Seymour Fisher also supports the increased importance placed on self-concept.[25] Fisher contends that what one thinks and feels about one's entire self is greatly influenced by what one thinks and feels about one's body.

A study by Robert Davis[26] in 1972 focused upon the effects of "risk" activity upon a person's self-actualization. The "risk" activities involved were rock climbing and rappelling. The students participating in the study were Outward Bound graduates.

Students were asked to give a short verbal description reflecting their feelings and enthusiasm prior to, during, and after the climbing activities.

Results of the study indicated; increased self-awareness and self-actualization can come through participation in adventure type activities, the conquering of fear is most important to the risk-taker, the overcoming of fear results in new levels of self-awareness and self-confidence, and rock climbing has served as the impetus for self-reflection and self-growth.

Davis' study also concluded that it was possible to design educational programs containing programs containing the element of fear and the opportunity to react to this fear. The expected result of a successful participation in such program would be "postive personal growth.

SELF-CONCEPT AND ACADEMIC ACHIEVEMENT

Lynn studied the effects of sex, anxiety, aggression, depression, and self-concept upon academic achievement.[27] Lynn assumed that self-concept would reflect in greater academic achievement.

The methodological approach consisted of 4 groups of students taking self-reports, personality questionaires, and individual grade-point averages. Students were also compared in sex, and over-under achiever forms.

Results of the study were considered inconclusive. Despite the fact that the data did not produce statistically significant results, it was suggestive of statistical tendencies which support the author's hypothesis. Lynn concluded that there is a very great possibility that there is a definite relationship between self-concept and academic achievement.

A paper by Dean Meinke[28] supported the belief of a relationship between self-concept and learning. The paper described a study of 36 college students with varying degrees of self-concept.

The students were categorized according to high positive or low positive self-concepts. After categorization the subjects attempted four concept attainment problems. The measuring device was a modification of the Q-sort Technique constructed by Engel.

Results of the study indicated that those subjects having a greater positive self-concept attained abstract concepts more readily.

A study by Jefferson Joseph DeBlanc[29] in 1973, was directed at the academic performance of students who have taken part in an

Outdoor Educational Center, as opposed to a control group of students who have not participated in the center. The study was conducted at the St. Martin Parish, St. Martinville, Louisiana.

A group of 285 senior high school science pupils was considered the experimental group. The control group consisted of 194 senior high school science pupils from a different school.

Both groups were pre and post tested using The Metropolitan Achievement Tests: Science Concepts and Understanding and Science Information. The experimental group was exposed to twelve short science courses offered at an Outdoor Educational Center.

Results indicated that students having outdoor education, through the center, achieved a significant gain over those science pupils not exposed to the program. Whites appeared to gain more in terms of science achievement than non-whites.

A study conducted by Eugene S. McNamara and H. Seymour Fowler[30] demonstrated the relationship between outdoor learning and academic achievement. The study was conducted at East Ridge Junior High School, Ridgefield, Connecticut. Students in grades seven through nine were divided into groups according to ability and teacher recommendations. There was a total of fifteen groups averaging twenty-five students per group.

The groups were pre-tested with the ESCP Achievement Test, The Cornell Critical Thinking Test, and the McNamara Indoor Outdoor Preference Appraisal. Four hypotheses were presented by the authors. These hypotheses were (1) the outdoor laboratory method contributed to significantly greater achievement as measured by gain scores on the ESCP Achievement Test-Unit One, (2) the outdoor laboratory method

contributes to significantly greater gain scores in critical thinking as measured by the Cornell Critical Thinking Test, (3) the outdoor Laboratory method contributes to significantly greater gain scores as measured by the MacNamara Indoor-Outdoor Preference Appraisal, and, (4) outdoor laboratory investigations contribute to greater achivement on all individual concepts as measured by the concepts tests.

The following conclusions were reached from the study; a.) If parts of a concept can be related to the student's immediate environment, the concept has a better chance of being understood, whether the concept is concrete or abstract, b.) critical thinking is enhanced in the out-of-door environment, c.) the lower ability student tends to prefer the environment in which he is exposed, and, d.) concepts that are an integral part of the student's environment are best learned in the out-of-door environment.

SUMMARY

This chapter has presented a review of related literature on outdoor adventure activities and their effect on self-concept. The majority of the studies were focused on four areas. These areas included survival training on self-concept, Outward Bound training and self-concept, Outward Bound adaptative programs and self-concept, and self-concept as it relates to academic achievement. Most studies indicated some change had occured to self-concept after exposure to outdoor adventure activities.

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[1]Paul Risk, "Effects of an Experimental Wilderness Survival Experience on Self-Concept, Personality and Values", Dissertation Abstracts International, 36 (1976), 1473A (Brigham Young University).

[2]Seymour Robbins, "Outdoor Wilderness Survival and Its Psychological and Sociological Effects Upon Students in Changing Human Behavior," Dissertation Abstracts International, 35 (1976), 1473B (Brigham Young University).

[3]Paul Cleland, "Human Relations in Stress - A Study of Students in U.S.A.F. Survival Training" (unpublished Masters Thesis, University of Oklahoma, 1976), pp. 15-19.

[4]R.A. Heaps and C.T. Thorstenson, "Outdoor Survival and Its Implications for Rehabilitation", Therapeutic Recreation Journal, 7, No. 1, (1973), pp. 31-33.

[5]D. Moses and D. Peterson, "Academic Achievement Helps Programs" Therapeutic Recreation Journal, 5, No. 1 (1972), pp. 5-6.

[6]Ibid., p. 6.

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[16]Naches and Roberts, cited in, "A Review of Research and Evaluation Literature on Outward Bound and Related Educational Programs", ed. Robert Godfrey, (Colorado Outward Bound School, 1976.) p. 9.

[17]Fersch and Smith, cited in, "A Review of Research and Evaluation Literature on Outward Bound and Related Educational Programs", ed. Robert Godfrey, (Colorado Outward Bound School, 1976), p. 9.

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CHAPTER III

METHOD

This chapter is concerned with the methods and procedures involved in determining any significant changes in the self-concepts of Outdoor Recreation students. This will include selection of subjects, the measuring instrument, procedures and collection of data.

SELECTION OF SUBJECTS

Within the study, 99 subjects were chosen from four classes at Eastern Washington University. Within the study there were 49 females and 50 males. Class standing included 31 Freshmen, 26 Sophomores, 24 Juniors, 12 Seniors and 4 Graduate students. Participants came from four different classes. These classes included: Cultural Anthropology (Ant. 101), Survival Education (RPA. 315), Outdoor Leadership (RPA. 410) and Wilderness Living (RPA. 206).

The control group consisted of a Cultural Anthropology class composed of a total of 43 students. Within this group there were 23 Freshman, 14 Sophomores, 1 Junior, 3 Seniors, and 1 Graduate student. The group had 19 male students and 24 female students.

The class was a lecture type presentation within a large classroom. The class focused on introducing students to the study of man with a principal emphasis on culture.

This class was chosen as the control group because of its size (43 students) and variability within the group (age, class standing and sex). Another factor was the unrelated nature of the class to Outdoor Recreation or adventure activities. This separation was desirable to reduce any influence by outdoor related activites or attitudes. All the participants within the study were volunteers.

The three classes which formed the "treated groups" were in Outdoor Recreation. Each class contained an adventure activity structured into the course curriculum. These adventure activities included such things as; overnight survival camps, rappelling, and back country hiking.

As one of the treated groups, a class in Wilderness Living (RPA. 206) was utilized. Wilderness Living provides students with an introduction to the techniques and procedures of living and traveling in a wilderness environment. Special attention was given to modern conservation practices for using and preserving the wilderness environment.[1] Included in the class structure was a five day field trip (May 26 through May 30). The field trip consisted of backpacking in Western Montana. Students were expected to deal with emerging problems with a minimum of instructor help. The trip included such activities as travel in inclement weather (rain, low temperatures, snow, and wind), a peak climb by moonlight and initiative games. The teaching method was a combination of lecture, direct experience, and the exploratory method.

The class consisted of twenty four students. There were 13 male students and 11 female students. Within the group there were 4 Freshman,

7 Sophomores, 10 Juniors, 1 Senior and 1 Graduate student.

The second treated group was a Survival Education (RPA. 315) class. Survival Education provides students with basic skills and information which would help them predict the types of emergencies they are likely to encounter in a particular geographic location.[2] Included in the class structure was a weekend field trip (May 14 through May 15, 1977).

The field trip was conducted ten miles east of Cheney, Washington. The students practiced survival techniques such as food gathering, building shelters, firecraft, water procurement, and the proper use and care of their clothing and equipment. The students were provided with a minimum of food and equipment throughout the field experience.

The class was composed of twenty two students. There were 10 male students and 12 female students.

Within the class there were 4 Freshman, 5 Sophomores, 8 Juniors, 4 Seniors and 1 Graduate student.

The final treated group within the study consisted of an Outdoor Leadership class (RPA. 410). The course is described as a culmination of the outdoor recreation and skill oriented courses with an emphasis on the concepts of positive self-image and outdoor leadership. It offered opportunities in group dynamics, program planning, survival skills, and an overnight encounter with limited supplies. The objective being to foster the necessary values and attitudes and leadership characteristics related to adventure programming in outdoor recreation through "real" field experiences.[3]

The overnight encounter was conducted approximately twenty miles southeast of Cheney, Washington from May 14 through May 15, 1977. Adventure activities programed in the overnight encounter were a short rappel, a long rappel, a tyrolean, traverse over a 100 foot gorge and spending the night with a minimum of equipment and food.

The Outdoor Leadership class was composed of ten students with 8 male students and two female students. Within the class there were 0 Freshmen, 0 Sophomores, 5 Juniors, 4 Seniors, and 1 Graduate student.

MEASURING INSTRUMENT

The measuring instrument used in the study was the Tennessee Self-Concept Test. The test was developed by William Fitts,[4] and is designed to fill the need for a well standardized and multi-dimensional testing instrument.

The test consists of 100 self-descriptive statements which the subject uses to protray his own picture of himself. (See Appendix A) The test can be used for either individuals or groups, posessing a subject age of twelve or above and at least a sixth grade reading level. Most subjects complete the test in 10 to 20 minutes with a mean time of about 13 minutes.

In 1955 William Fitts began developing the test by compiling a large pool of self-descriptive items. This original pool of items was derived from a number of other self-concept measures including those developed by Balester[5], Engel[6], and Taylor[7]. These items became the 90 positive and negative items. The remaining 10 items comprise the Self-Criticism Scale.

The standardization group from which the norms were developed was a sample of 626 people. The group was comprised of people throughout the country with age ranging between 12 and 68. Subjects were obtained from high school and college classes, employees at state institutions, and various other sources.

The test is designed to evaluate the following aspects of the self: Identity, Self-Satisfaction, Behavior, Physical Self, Moral-Ethical Self, Personal Self, Family Self, and Social Self. The following catagories were evaluated for group comparison: Total Positive Score (TP), and Self-Criticism (SC).

Total Positive Score (TP) is the most important score found on the Counseling Form of the Tennessee Self-Concept Test. It reflects the overall level of self-esteem. Generally, people with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth, see themselves as undesirable, often feel anxious, depressed, and unhappy, and have little faith or confidence in themselves.[8]

The Self-Criticism Score (SC) is a scale composed of ten items. These items have been taken from the Minnesota Multiphasic Personality Inventory Lie Scale.[9] The items are all mildly derogatory statements that most people admit as being true for themselves. Individuals who deny most of these statements most often are being defensive and making a deliverate effort to present a favorable picture of themselves. High scores generally indicate a normal openness and capacity for self-criticism. Low scores indicate a defensiveness and an inability for self-criticism.

The Tennessee Self-Concept Test is a complete measuring device with instructions included in the test booklet. The answer sheet is arranged in order that the subject answers every other item on the answer sheet.

Test reliability was measured on a test-retest with 60 college students over a two week period. Test reliability for the Self-Criticism Scale was .75. When calculated for the Total Positive Score, test reliability was .92. A shortened version of the test was administered in a study of psychiatric patients, by Congdon[10]. In this study the test reliability coefficient for the Total Positive Score was .88.

Using the Minnesota Multiphasic Personality Inventory (M.M.P.I.) and the Tennessee Self-Concept Test on 102 patients, the correlation coefficient for the Total Positive was .39. The Self-Criticism Scale comparison produced a correlation coefficient of .56, according to a study by McGee[11].

Other correlation studies have produced similar results. Quinn[12] obtained a correlation of .534 between the Total Positive Score in the Tennessee Self-Concept Test and the Minnesota Teacher Attitude Inventory. Wayne (1963)[13] reported a correlation of .68 between the Total Positive Score and Izard's Self - Rating Positive Affect Scale.

Fitts reports that there is considerable evidence that a person's concept of self does change as a result of significant experiences. The Tennessee Self-Concept Test reflects these changes in predicted ways, thus constituting additional evidence for the validity of the instrument.[14]

PROCEDURES

The Tennessee Self-Concept Test was administered to the students in their respective classrooms. The classrooms were well-lighted, with indoor temperatures approximately 70° F. The students were given pencils, question booklets and answer sheets. The students were similarly instructed as to the procedure for filling in their class, date, age, sex, and class standing, through the use of an overhead projector and acetate sample sheet. Participants within the study were advised to answer the questions as they honestly felt and not try to "second guess" the test.

The pre-test was given to all classes the first week of the Spring Quarter, 1977. The post-test was given to all students the last week of Spring Quarter, 1977. This amounted to a period of approximately nine weeks. Students were allowed to answer the test at their own rate. The students were being tested as separate groups and not as individuals, thereby eliminating the need for individual names on the answer sheets.

COLLECTION OF DATA

Scores were recorded from all groups for both the pre- and post-tests. When evaluating the answer sheet, four of the six available score columns were utilized. These columns were; the physical self, the personal self, the social self, and the self criticism column. The columns not included in the scoring process were; the moral-ethical self and the family self.

The moral-ethical self column describes the self from a moral-

ethical frame of reference--moral worth, relationship to god, feelings of being a "good" or "bad" person, and the satisfaction with one's religion or lack of it.[15] This column was eliminated because it was felt the relationship of adventure activities through outdoor recreation is too vague to adequately predict its effects on the student's total self-confidence.

The family self column reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.[16] As previously discussed, it was felt the effects of the outdoor recreation classes as opposed to the control group would not be directed at those areas covered by the family self column. Consequently, the results would be of dubious validity.

The score columns that were included in the data collection included; the physical self, the personal self, and the social self. Concurrent with these, is the self criticism column which has previously been discussed.

The physical self column enables the individual to present his view of his body, his state of health, his physical appearance, skills, and sexuality. Gividen[17], utilized this column extensively when he tested army paratroop trainees. These trainees were subjected not only to physical dangers but to attitude training in which failure was considered a disgrace. Predictably, the failure group showed a significant decrease in self-concept, especially in the physical self column.[18]

The personal self column reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation

of his personality apart from his body or his relationship to others.[19] Much of the experiences contained in the outdoor recreation classes involved adventure activity as a group encounter.

The social self column is a "self as perceived in relation to others" category, but pertains to "others" in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.[20]

The columns of physical self, personal self, and social self were included in the data collection because of their direct relation to those areas most often affected in an adventure activity. Specifically if a change in self-concept was to be observed it would probably be observed in these areas.

On the score sheets the basic ninety itmes are half in black (positive items) and half in red (negative items). The response scale numbers for negative items have all been reversed on the score sheet in order to permit a simple, unified scoring system. Through this system a person who says completely false to a negative item obtains a high score just as he does when he says completely true to a positive item. Consequently, high scores indicate uniformly mean positive self-concept.[21]

To obtain the Total Postive Score from the score sheet column totals were added. The resultant number is the Total Positive Score for the subject.

Self Criticism Scores (SC) were obtained by adding the circled scores for items 91 through 100. All omitted items were assigned the numerical value of 3 in score computation.

After computation, the resultant pre and post test Total Positive Scores and Self Criticism Scores were compared, and class means computed. The collected data is presented in the following chapter.

ENDNOTES

[1]Eastern Washington University, General Catalog, 1977-78 (Cheney, Washington; Eastern Washington University, 1977), p. 242.

[2]Ibid., p. 243

[3]Ibid., p. 244

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[6]Ibid., p. 1.

[7]Ibid., p. 1

[8]Ibid., p. 2

[9]Ibid., p. 2

[10]Ibid., p. 15

[11]Ibid., p. 24

[12]Ibid., p. 28

[13]Ibid., p. 28

[14]Ibid., pp. 28-30

[15]Ibid., p. 3

[16]Ibid., p. 3

[17]Ibid., p. 3

[18]Ibid., p. 28

[19]Ibid., p. 3

[20]Ibid., p. 3

[21]Ibid., p. 3

Chapter IV

ANALYSIS OF DATA

The purpose of this chapter was to determine any significant differences between the pre and post test scores of both the control and "treated groups". In determining any significant changes, the differences between the pre and post test of the control and "treated" groups were compared.

In treating the data, the first step taken was a breakdown of the classes involved in the study. This breakdown consisted of classification by class, number of students, sex, range of ages and class standing. Tables 1 and 2 show the results of that computation.

Table 1

Pre-Test Categorization of Participants According to Class, Number, Sex, Age, and Mean Class Standing

Class	Number of Participants	Sex	Age (Range and Mean)	Mean Class Standing
Cultural Anthropology 101 (Control Group)	43	19 male 24 female	18-37 20.21	1.69
Wilderness Living (R.P.A. 206)	24	13 male 11 female	18-29 21.91	2.37
Survival Education (R.P.A. 315)	22	10 male 12 female	19-29 21.77	2.68
Outdoor Leadership (R.P.A. 410)	10	8 male 2 female	21-27 22.50	3.5

Table 2 shows similar data computed from the post test subjects. Categories include; class, number of participants, sex of participants, age of participants, and mean class standing.

Table 2

Post Test Categorization of Participants
According to Class, Number, Sex, Age, and Mean Class Standing

Class	Number of Participants	Sex	Age (Range and Mean)	Mean Class Standing
Cultural Anthropology 101 (Control Group)	30*	14 male 16 female	18-37 20.85	1.83
Wilderness Living (R.P.A. 206)	23	13 male 10 female	18-29 22.28	2.58
Survival Education (R.P.A. 315)	20	8 male 12 female	19-29 21.8	2.63
Outdoor Leadership (R.P.A. 410)	10	8 male 2 female	21-27 22.8	3.6

The statistical instrument utilized in determining the significance in any levels of difference between pre and post self-concepts was the separate variance t test.

The separate variance t test was chosen as the measuring device because of its applicability in measuring significant differences in pre and post test means. The formula for computing the t score was taken from Popham[1], and is shown in Figure 1.

* - Number of students present for post-testing.

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Where; t = the value by which the statistical significance of the mean difference will be judged.

$\overline{X}$ = The mean of group 1

$\overline{X}_2$ = The mean of group 2

S_1^2 = The variance of group 1

N_1 = The number of subjects in group 1

N_2 = The number of subjects in group 2

FIGURE 1

THE FORMULA FOR COMPUTING THE t SCORE (SEPARATE VARIANCE)

The significance of the derived difference between the pre and post test means for each group was tested at the .05 level of significance.

Results of the t test when applied to the study data are shown in Tables 3 and 4. Table 3 shows the Total Positive Score means and t test results. The values of t necessary for statistical significance at the .05 level, are listed in the Critical Value column of Table 3.

Table 3

Pre and Post Total Positive Means Comparison; Using the t Test

Class	Pre	Post	t score	Critical Value
Cultural Anthropology 101	200.44	193.83	-1.130	1.99
Wilderness Living 206	204.71	204.74	0.007	2.02
Survival Education 315	202.68	209.5	0.979	2.021
Outdoor Leadership 410	208.4	214.4	0.590	2.101

The first null hypothesis; there was no statistical significant difference in Total Positive self-concept scores between the non-treated and treated groups was accepted. The scores achieved were not significant at either the .05 or .01 level of confidence.

Table 4 shows the results of the t test when applied to the data of pre and post Self-Criticism means. The values of t necessary for statistical significance at the .05 level, are listed in the Critical Value column of Table 4.

The second null hypothesis; there was no statistically significant difference in the Self Criticism Scores between the non-treated and treated groups was accepted. The scores achieved were not significant at either the .05 or .01 level of confidence

Table 4

Pre and Post Test Self-Criticism Means Comparison; Using the t Test

Class	Pre	Post	t Score	Critical Value
Cultural Anthropology 101	35.79	37.07	0.904	1.99
Wilderness Living 206	35.37	35.26	0.071	2.02
Survival Education 315	35.77	37.90	0.922	2.021
Outdoor Leadership 410	34.2	34.7	0.286	2.101

ENDNOTES

[1] W. James Popham, Educational Statistics (New York: Harper and Row, 1967), p. 145.

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the effects on self-concept of those students exposed to outdoor adventure activities as opposed to those students exposed to the more "traditional" forms of education (i.e. lecture method of teaching).

The study was conducted Spring Quarter 1977, at Eastern Washington University, at Cheney, Washington. The study population consisted of four classes. These classes were: Cultural Anthropology 101, Wilderness Living 206, Survival Education 315, and Outdoor Leadership 410. The Cultural Anthropology class was the control group utilizing the "traditional" style of college teaching (lecture method). The remaining three classes were the "treated groups" in which the students were exposed to various outdoor adventure activities, such as rappelling, survival training, rock climbing, and solo.

During the first week of Spring Quarter, 1977, all the subjects were given a pre-test, utilizing the Tennessee Self-Concept Scale. Post tests were given to the participants, utilizing the Tennessee Self-Concept Scale, during the last week of Spring Quarter, 1977.

Data was analyzed using the t test as the measuring instrument. Data computation produced three major findings. These findings were:

(1) Class means suggested a positive change in self-concept through the Total Positive Score (TP), for all the classes featuring outdoor adventure activities.

(2) Statistically significant levels of change, for the Total Positive Score (TP) were not achieved. As a result, the

first null hypothesis was accepted. The first null hypothesis stated that there would be no statistically significant differences in the Total Positive Score (TP) between the "treated groups", exposed to outdoor adventure activities, and the control group, featuring "traditional" educational methods.

(3) Statistically significant levels of change, for the Self-Criticism Score (SC) were not achieved. This factor supported the second null hypothesis. The second null hypothesis stated that there would be no statistically significant differences in the Self-Criticism Scores (SC) between the "treated groups", exposed to outdoor adventure activities and the control group, featuring "traditional" educative methods.

CONCLUSIONS

The following conclusions were made regarding the findings of this study.

(1) While not statistically significant, the class means suggested a positive change in self-concept had occurred in those classes featuring outdoor adventure activities.

(2) According to class means, the control group (Cultural Anthropology) produced a static self-concept in which no positive change was observed.

(3) Those classes featuring outdoor adventure activities did produce a change in self-concept whereas the class not featuring these activities did not produce an equivalent

change.

RECOMMENDATIONS

The following recommendations were made regarding the findings of the study:

(1) Additional research should be done with an expanded subject population.

(2) Different measuring instruments, such as the Minnesota Multiphasic Personality Inventory should be utilized.

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APPENDIX A

TENNESSEE SELF-CONCEPT SCALE

	Item No.
1. I have a healthy body	1
3. I am an attractive person	3
5. I consider myself a sloppy person	5
19. I am a decent sort of person	19
21. I am an honest person	21
23. I am a bad person	23
37. I am a cheerful person	37
39. I am a calm and easy going person	39
41. I am a nobody	41
55. I have a family that would always help me in any kind of trouble	55
57. I am a member of a happy family	57
59. My friends have no confidence in me	59
73. I am a friendly person	73
75. I am popular with men	75
77. I am not interested in what other people do	77
91. I do not always tell the truth	91
93. I get angry sometimes	93

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

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	Item No.
2. I like to look nice and neat all the time	2
4. I am full of aches and pains	4
6. I am a sick person	6
20. I am a religious person	20
22. I am a moral failure	22
24. I am a morally weak person	24
38. I have a lot of self-control	38
40. I am a hateful person	40
42. I am losing my mind	42
56. I am an important person to my friends and family	56
58. I am not loved by my family	58
60. I feel that my family doesn't trust me	60
74. I am popular with women	74
76. I am mad at the whole world	76
78. I am hard to be friendly with	78
92. Once in a while I think of things too bad to talk about	92
94. Sometimes, when I am not feeling well, I am cross	94

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
7. I am neither too fat nor too thin	7
9. I like my looks just the way they are	9
11. I would like to change some parts of my body	11
25. I am satisfied with my moral behavior	25
27. I am satisfied with my relationship to God	27
29. I ought to go to church more	29
43. I am satisfied to be just what I am	43
45. I am just as nice as I should be	45
47. I despise myself	47
61. I am satisfied with my family relationships	61
63. I understand my family as well as I should	63
65. I should trust my family more	65
79. I am as sociable as I want to be	79
81. I try to please other, but I don't overdo it	81
83. I am no good at all from a social standpoint	83
95. I do not like everyone I know	95
97. Once in a while, I laugh at a dirty joke	97

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
8. I am neither too tall nor too short	8
10. I don't feel as well as I should	10
12. I should have more sex appeal	12
26. I am as religious as I want to be	26
28. I wish I could be more trustworthy	28
30. I shouldn't tell so many lies	30
44. I am as smart as I want to be	44
46. I am not the person I would like to be	46
48. I wish I didn't give up as easily as I do	48
62. I treat my parents as well as I should	62
64. I am too sensitive to things my family say	64
66. I should love my family more	66
80. I am satisfied with the way I treat other people	80
82. I should be more polite to others	82
84. I ought to get along better with other people	84
96. I gossip a little at times	96
98. At times I feel like swearing	98

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
13. I take good care of myself physically	13
15. I try to be careful about my appearance	15
17. I often act like I am "all thumbs"	17
31. I am true to my religion in my everyday life	31
33. I try to change when I know I'm doing things that are wrong	33
35. I sometimes do very bad things	35
49. I can always take care of myself in any situation	49
51. I take the blame for things without getting mad	51
53. I do things without thinking about them first	53
67. I try to play fair with my friends and family	67
69. I take a real interest in my family	69
71. I give in to my parents	71
85. I try to understand the other fellow's point of view	85
87. I get along well with other people	87
89. I do not forgive others easily	89
99. I would rather win than lose in a game	99

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

	Item No.
14. I feel good most of the time	14
16. I do poorly in sports and games	16
18. I am a poor sleeper	18
32. I do what is right most of the time	32
34. I sometimes use unfair means to get ahead	34
36. I have trouble doing the things that are right	36
50. I solve my problems quite easily	50
52. I change my mind a lot	52
54. I try to run away from my problems	54
68. I do my share of work at home	68
70. I quarrel with my family	70
72. I do not ack like my family thinks I should	72
86. I see good points in all the people I meet	86
88. I do not feel at ease with other people	88
90. I find it hard to talk with strangers	90
100. Once in a whiel I put off until tommorrow what I ought to do today	100

Responses-	Completely false	Mostly false	Partly false and partly true	Mostly true	Completely true
	1	2	3	4	5

THE EFFECTS OF OUTDOOR ADVENTURE ACTIVITIES UPON SELF CONCEPT

An Abstract of A Thesis

Presented to

Eastern Washington University

Cheney, Washington

In Partial Fulfillment of the Requirements

for the Degree

Master of Science

By

Alan Ewert

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ABSTRACT

The purpose of this study was to determine the effects on self-concept of those students exposed to outdoor adventure activities as opposed to those students exposed to the more "traditional" forms of education (i.e. lecture method of teaching).

The study was conducted Spring Quarter 1977, at Eastern Washington University, at Cheney, Washington. The study population consisted of four classes. These classes were: Cultural Anthropology 101, Wilderness Living 206, Survival Education 315, and Outdoor Leadership 410. The Cultural Anthropology class was the control group utilizing the "traditional" style of college teaching (lecture method). The remaining three classes were the "treated groups" in which the students were exposed to various outdoor adventure activities, such as rappelling, survival training, rock climbing, and solo.

During the first week of Spring Quarter, 1977, all the subjects were given a pre-test, utilizing the Tennessee Self-Concept Scale. Post tests were given to the participants, utilizing the Tennessee Self-Concept Scale, during the last week of Spring Quarter, 1977.

Data was analyzed using the t test as the measuring instrument. Data computation produced three major findings. These findings were:

(1) Class means suggested a positive change in self-concept through the Total Positive Score (TP), for all the classes featuring outdoor adventure activities.

(2) Statistically significant levels of change, for the Total Positive Score (TP) were not achieved. As a result, the

first null hypothesis was accepted. The first null hypothesis stated that there would be no statistically significant differences in the Total Positive Score (TP) between the "treated groups", exposed to outdoor adventure activities, and the control group, featuring "traditional" educational methods.

(3) Statistically significant levels of change, for the Self-Criticism Score (SC) were not achieved. This factor supported the second null hypothesis. The second null hypothesis stated that there would be no statistically significant differences in the Self-Criticism Scores (SC) between the "treated groups", exposed to outdoor adventure activities and the control group, featuring "traditional" educational methods.

VITA

Alan Ewert

Bachelor of Science in Natural Resource Management
University of Wisconsin
December, 1971

Survival Instructor, United States Air Force
Fairchild A.F.B., Washington
June 1973 to March 1977

Master Instructor Certification
United States Air Force
Fairchild A.F.B., Washington
June 1, 1976

Teaching Assistant
Eastern Washington University
December 1977

Master of Science
Eastern Washington University
December 1977